

Individual Residential Wells and Irrigation Wells



Greg Withycombe, DHEC
Environmental Quality Control
SC LLR Course No. CEC274001

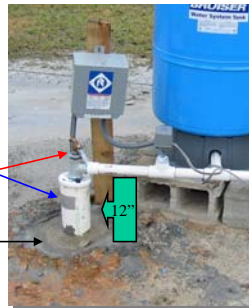
Existing Wells

- Does the well meet the well standards?
- Does the well work?
- How is the water quality?



What DHEC Looks For

- Grout
- 12" above ground
- ID tag
- Wellhead Sealed
- Sampling Spigot
- Distance from contaminant source



What DHEC Looks For

- Visible well casing reveals improperly sealed well

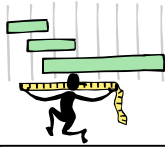


Same Regulations Apply to Irrigation Wells





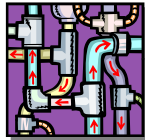
Distance From Contaminant Sources



Property lines and buildings	5 feet
Sewer lines (main)	20 feet
Septic tank/tile field	50 feet
Lakes, streams, surface water	50 feet
Animal feedlots, barns, stables	50 feet
Chemical, herbicide, pesticide and petroleum storage or handling site	100 feet

Does the Well Work?

- Pumps, tank, and piping are not regulated by DHEC.
- Well head is regulated – must be sealed regardless of operation.
- Licensed Well Driller vs. Plumber



Water Quality, Private Wells, and DHEC



DHEC does not regulate water quality
or quantity in private wells

Water Quality



Health

- Bacteria
 - Total
 - Fecal
- Nitrate
- Lead
- Volatile Organic Compounds (VOC)

Taste and Odor

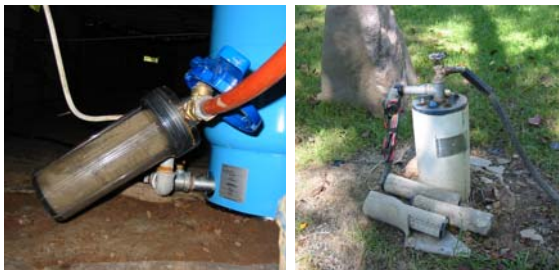
- Hydrogen Sulfide
- Iron
- Manganese
- Hardness
- Salinity

Water Quality May Effect Closing

- Health effects may effect closing for some mortgage companies (HUD 5)
- Taste and odor may effect closing for potential buyers (Cosmetic issues)
- All can be treated !



Water Treatment?



Out of Use Wells Should Be Properly Abandoned



Getting a New Well

- Finding a Well Driller
- Contract and Paperwork
- Permitting
- Bacteria Sample with Residential Well



Finding a Well Driller



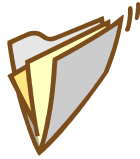
- Well drillers must be licensed and bonded through LLR.
- Licensee Lookup under Environmental Certification Board or ask well inspector. Find out at: www.llr.state.sc.us
- Irrigation companies need certified driller.
- Shop around but “you get what you pay for.”

Which driller would you want?



Contract and Warranty

- Use a contract – yours or the drillers.
- Warranty: well vs. tank and pump.



Copies for Homeowners

- The homeowner will be evaluating water quality.
- Quality issues make take time to appear.
- Call Well Driller instead of you.



DHEC Documentation

- Notice of Intent (NOI) - application for coverage under a general permit.
- Water Well Record – details construction of and use of the well. Submitted by driller within 30 days of well completion.
- Results of bacteria and metals/minerals samples analyzed by DHEC.



Permitting



- Obtain and Submit a Notice of Intent (NOI)
- Provides coverage under a General Permit
- \$70.00 for residential well
- \$50.00 for irrigation well
- Confirmation letter goes to whoever paid for the permit.

Notice of Intent

- Can be filled out by the Owner, Driller, or agent
- Driller must have copy on site
- 48 hour notice



Well Inspections



- New wells inspected at random
- Wells installed after 2000 may have been inspected
- Copy of inspection can be obtained from DHEC well inspector or Central Office

Bacteria Sample



- \$20.00 for existing well
- Included in Residential well permit
- 7 to 10 day turnaround
- Must use DHEC bottle (instructions included)

Metal and Mineral Sample

- \$50.00
- At least 2 liter plastic bottle with screw on top.
- Lead and Nitrate included
- 6 to 8 week turnaround



Where Do I Get Sample Bottles and NOI Forms?



- County Health Departments or Environmental Health Services Office
- Environmental Quality Control District Office
- DHEC Central Office (Columbia)
- NOI form is online at www.scdhec.gov/water then Groundwater on Quick Links and go to Private Well Program and Forms



Goal

- Protect public health by ensuring that people can find out about their water quality
- Protect the groundwater resource by ensuring that wells are constructed properly